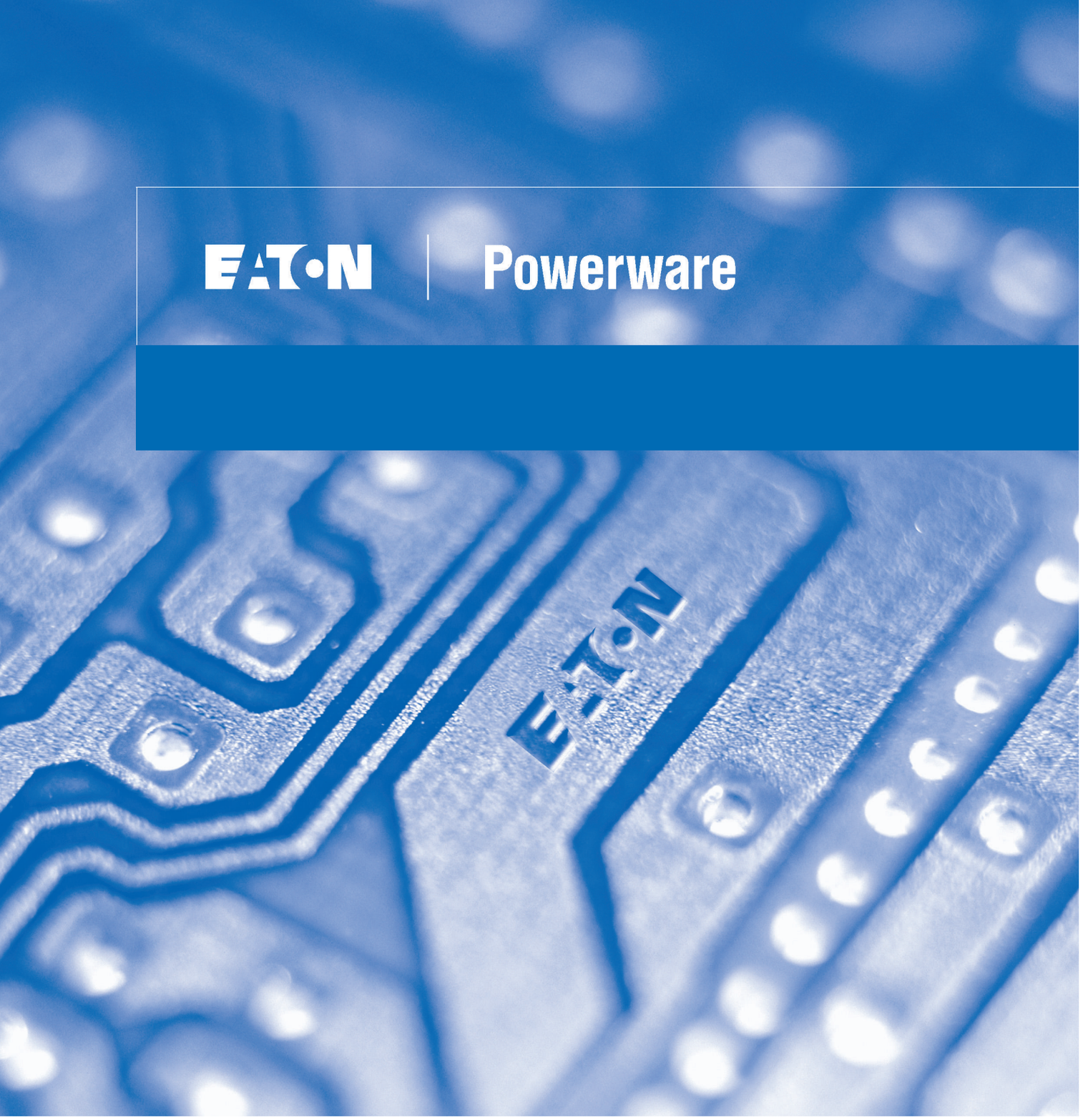



# Powerware® 9135 Two-in-One UPS
# 5000/6000 VA
# User's guide

# ENGLISH

## Safety guidelines

### Read before installing product

#### Safety of persons

◗ The UPS has its own internal power source (the battery).
Consequently, the power outlets may be energised even if the UPS is disconnected from the AC-power source.
◗ Dangerous voltage levels are present within the UPS. It should be opened exclusively by qualified service personnel.
◗ The UPS must be properly earthed. Measurements are required to ensure that the total leakage current of the UPS and the protected equipment does not exceed 3.5 mA by checking their characteristics.
◗ The UPS and their batteries must be kep in a ventilated room or compartment. This equipment should only be used in a supervised indoor environment.
◗ The battery supplied with the UPS contains small amounts of toxic materials. To avoid accidents, the directives listed below must be observed :
– Never burn the battery (risk of explosion).
– Do not attempt to open the battery (the electrolyte is dangerous for the eyes and skin).
– Comply with all applicable regulations for the disposal of the battery.
– Batteries constitute a danger (electrical shock, burns). The short-circuit current may be very high. Precautions must be taken for all handling : remove watches, rings, bracelets and any other metal objects, use tools with insulated handles.

#### Product safety

◗ The UPS connection instructions and operation described in the manual must be followed in the indicated order.
◗ UPS must be connected to a nearby wall outlet that is easily accessible. The UPS can be disconnected from the AC-power source by removing the power cord.
◗ Check that the indications on the rating plate correspond to your AC-power system and to the actual electrical consumption of all the equipment to be connected to the UPS.
◗ Never install the UPS near liquids or in an excessively damp environment.
◗ Never let a foreign body penetrate inside the UPS.
◗ Never block the ventilation grates of the UPS.
◗ Never expose the UPS to direct sunlight or source of heat.
◗ If the UPS must be stored prior to installation, storage must be in a dry place.
◗ The admissible storage temperature range is -25° C to +55° C.

#### Special precautions

◗ Once installed and connected to the AC power source for the first time, the battery will start to charge. Full charging to obtain the rated battery backup time requires at least 8 hours.
◗ Before and after the installation, if the UPS remains deenergised for a long period, the UPS must be energised for a period of 24 hours, at least once every 6 months (for a normal storage temperature less than 25° C). This charges the battery, thus avoiding possible irreversible damage.
◗ During the replacement of the battery module, it is imperative to use the same type and number of element previously mounted in the UPS, in order to maintain an identical level of perforamance and safety. In case of doubt, don't hesitate to contact our after sales department (for more information, refere to the web site www.mgeops.com).

# FRANÇAIS

## Consignes de sécurité

### A lire avant toute installation du produit

#### Sécurité des personnes.

◗ L'ASI possède sa propre source d'énergie interne (batterie).
Les prises de sorties peuvent donc être sous tension même si l'ASI est déconnectée du réseau électrique.
◗ Présence de tension dangereuse à l'intérieur de l'ASI. Son ouverture ne peut être effectuée que par un personnel qualifié.
◗ L'ASI doit être impérativement reliée à la terre. S'assurer lors de l'installation que la somme des courants de fuites de l'ASI et des équipements qu'elle alimente ne dépasse pas 3.5 mA en vérifiant leurs caractéristiques.
◗ Les ASI et leurs batteries doivent être installées dans une pièce ou un compartiment ventilé. Ces appareils doivent être utilisés uniquement dans un environnement intérieur contrôlé.
◗ La batterie fournie avec l'ASI contient une faible quantité de substances toxiques. Afin d'éviter tout accident, les consignes suivantes doivent être respectées :
– Ne pas jeter la batterie dans le feu (risque d'explosion).
– Ne pas tenter d'ouvrir la batterie (électrolyte dangereux pour les yeux et la peau).
– La mise au rebut doit être réalisée conformément à la législation en vigueur.
– La batterie présente des risques électriques (chocs électriques, brûlures). Le courant de court-circuit peut être très important. Des précautions doivent être prises pour les manipulations : ôter montre, bagues, bracelet ou tout autre objet métallique, utiliser des outils isolés.

#### Sécurité du produit

◗ Respecter impérativement l'ordre des consignes de raccordement et de mise en service décrites dans le manuel.
◗ L'ASI devra être raccordée à une prise d'alimentation située à proximité et facilement accessible. La séparation du réseau électrique s'effectue en débranchant le cordon d'alimentation.
◗ Vérifier les indications portées sur la plaque d'identification : elles doivent correspondre à votre réseau électrique d'alimentation et à la consommation électrique réelle de l'ensemble des équipements connectés.
◗ Ne pas placer l'ASI à proximité de liquide ou dans un environnement d'humidité excessive.
◗ Ne pas laisser pénétrer d'objet étranger à l'intérieur de l'ASI.
◗ Ne pas obstruer les grilles d'aération de l'ASI.
◗ Ne pas exposer l'ASI au soleil ou à proximité d'une source de chaleur.
◗ En cas de stockage avant la mise en service, placer l'ASI dans un endroit à l'abri de l'humidité.
◗ Température de stockage : -25°C à +55°C

#### Précautions particulières

◗ Lors de la première mise en service, après le raccordement au réseau électrique, la batterie se charge. La charge complète permettant une autonomie nominale ne sera atteinte qu'après au moins 8 heures de charge.
◗ Avant et après l'installation, si l'ASI doit rester hors tension pour une longue durée, elle doit être remise sous tension pendant une durée de 24 heures, au moins une fois tous les 6 mois (dans la cas d'une température de stockage inférieure à 25°C), afin de recharger les batteries sous peine de dégradation irréversible de celle-ci.
◗ Lors du remplacement des batteries internes de l'ASI, il est impératif d'utiliser le même nombre et le même type d'éléments batterie que ceux montés dans l'appareil, ceci afin de garantir un bon niveau de fonctionnement et de sécurité de l'ASI. En cas de doute, ne pas hésiter à faire appel à notre service après-vente (coordonnées sur le site web www.mgeops.com).

# DEUTSCH

## Sicherheitshinweise

### Vor Installation der Anlage lesen

#### Personenschutz

◗ Die USV verfügt über eine eigene interne Stromversorgung (Batterie).
Die Ausgangsstecker können daher unter Spannung stehen, auch wenn die USV nicht an das Netz angeschlossen ist.
◗ Gefährliche Spannung im Geräteinnern. Das Gerät darf ausschließlich von Fachkräften geöffnet werden.
◗ Die USV muss unbedingt geerdet sein. Vergewissern Sie sich bei der Installation, dass die Summe der Kriechströme der USV und der von ihr versorgten Geräte 3,5 mA nicht übersteigt. Überprüfen Sie zu diesem Zweck die Kenndaten der betreffenden Geräte.
◗ Die USV und die Batterien müssen in einem belüfteten Raum oder Abteil installiert werden. Die Geräte dürfen nur in einem überwachten Innenbereich eigesetzt werden.
◗ Die mit der USV-Anlage gelieferte Batterie enthält eine geringe Menge von giftigen Substanzen. Um eventuelle Risiken auszuschließen, sind folgende Sicherheitsvorschriften zu beachten:
– Werfen Sie die Batterie nicht ins Feuer (Explosionsgefahr)
– Versuchen Sie nicht, die Batterie zu öffnen (Elektrolyt gefährlich für Augen und Haut)
– Die Entsorgung muss unter Einhaltung der geltenden Vorschriften erfolgen.
– Die Batterie birgt elektrische Risiken (Stromschlag, Verbrennungen). Der Kurzschlussstrom kann sehr hoch sein. Bei Arbeiten sind Vorsichtsmaßnahmen zu beachten: Armbanduhr, Ringe, Armband sowie alle anderen Gegenstände aus Metall ablegen, Isolierwerkzeuge verwenden.

#### Produktsicherheit

◗ Die Reihenfolge der in dem Handbuch beschriebenen Anschluss- und Inbetriebnahme- Anweisungen ist unbedingt zu befolgen.
◗ Die USV muss an eine in der Nähe befindliche und leicht zugängliche Steckdose angeschlossen werden. Die Unterbrechung der Stromversorgung erfolgt durch Herausziehen des Stromkabels.
◗ Überprüfen Sie die Angaben auf dem Leistungsschild: sie müssen mit Ihrer Stromversorgung und dem tatsächlichen Stromverbrauch aller angeschlossenen Geräte übereinstimmen.
◗ Stellen Sie die USV nicht in der Nähe von Flüssigkeiten oder in einer extrem feuchten Umgebung auf.
◗ Achten Sie darauf, dass keine Fremdkörper in die USV gelangen.
◗ Achten Sie darauf, dass die Lüftungsschlitze der USV frei sind.
◗ Setzen Sie die USV nicht der direken Sonnenbestrahlung aus und stellen Sie sie nicht in der Nähe einer Wärmequelle auf.
◗ Bei Einlagerung vor der Inbetriebnahme bewahren Sie die USV an einem vor Feuchtigkeit geschützten Ort auf.
◗ Lagertemperatur : -25° C bis +55° C.

#### Besondere Vorsichtsmaßnahmen

◗ Sobald die USV bei der Inbetriebnahme an das Stromnetz angeschlossen wird, beginnt die Batterie sich aufzuladen. Die vollständige, für die Nennautomie erforderliche Ladung ist frühestens nach 8 Ladestunden abgeschlossen.
◗ Wenn die USV vor oder nach der Installation über einen längeren Zeitraum ohne Spannungsversorgung bleibt, sollte sie zum Wiederaufladen der Batterien mindestens einmal alle 6 Montage für 24 Stunden an das Stromnetz angeschlossen werden (bei einer Lagertemperatur von unter 25°C). Andernfalls können die Batterien einen nicht wieder rückgängig zu machenden Schaden erleiden.
◗ Um einen einwandfreien und sicheren Betrieb der USV zu gewährleisten, sollte beim Austauschen der internen Batterien der USV unbedingt darauf geachtet werden, dass Anzahl und Typ der Batterieelemente identisch sind mit den ursprünglich im Gerät befindlichen. Im Zweifelsfall zögern Sie nicht, sich an unseren Kundendienst zu wenden (die genaue Anschrift finden Sie auf unserer Website www.mgeops.com).

# ITALIANO

## Consegne di sicurezza

### Da leggere prima dell'installazione del prodotto

#### Sicurezza delle persone

◗ L'UPS è munito di una propria fonte di energia interna (batteria).
Le prese di uscita possono quindi essere in tensione anche se l'UPS è staccato dalla rete elettrica.
◗ Presenza di tensione pericolosa all'interno dell'UPS. La sua apertura può essere effettuata soltanto da personale qualificato.
◗ L'UPS deve essere tassativamente collegato alla terra. Durante l'installazione, accertarsi che la somma delle correnti di perdita dell'UPS e delle attrezzature che alimenta non superi i 3.5 mA, verificandone le relative caratteristiche.
◗ L'UPS e la rispettiva batteria devono essere installati in un locale o in un comparto adeguatamente ventilato. Queste apparecchiature devono ssere utilizzate esclusivamente in un ambiente interno controllato.
◗ La batteria in dotazione con l'UPS contiene una bassa quantità di sostanze tossiche. Per evitare qualunque infortunio, occorre rispettare le seguenti norme di sicurezza:
– Non buttare la batteria nel fuoco (rischio di esplosione).
– Non tentare di aprire la batteria (elettrolito pericoloso per gli occhi e per la pelle).
– Deve essere rottamato secondo la legislazione vigente.
– La batteria costituisce un pericolo elettrico (scosse elettriche, ustioni). La corrente di cortocircuito può essere molto importante. Occorre prendere delle precauzioni di manipolazione: togliere orologio, anelli, bracciale o qualunque altro oggetto metallico, utilizzare strumenti isolati.

#### Sicurezza del prodotto

◗ Rispettare tassativamente l'ordine delle norme di raccordo e di messa in funzione riportate nel manuale.
◗ L'UPS dovrà essere collegato ad una presa di alimentazione situata nei pressi e di facile accesso. La separazione dalla rete elettrica si effettua staccando il cavo di alimentazione.
◗ Verificare le indicazioni riportate sulla targa di identificazione: devono corrispondere alla rete elettrica di alimentazione dell'utente ed al consumo elettrico reale di tutte le attrezzature collegate.
◗ Non mettere l'UPS nei pressi di liquidi o in un ambiente eccessivamente umido.
◗ Non lasciare entrare corpi estranei all'interno dell'UPS.
◗ Non ostruire le griglie di areazione dell'UPS.
◗ Non esporre l'UPS al sole o nei pressi di una fonte di calore.
◗ In caso di stoccaggio prima della messa in funzione, mettere l'UPS in un luogo al riparo dall'umidità.
◗ Temperature di stoccaggio: da -25° C a +55° C.

#### Precauzioni particolari

◗ Durante la prima messa in funzione, dopo il raccordo alla rete elettrica, la batteria si carica. La carica completa per avere un'autonomia nominale sarà raggiunta dopo almeno 8 ore.
◗ Prima e dopo l'installazione, se l'UPS deve restare senza tensione per un periodo lungo, deve essere messo in tensione per una durata di 24 ore, almeno una volta ogni 6 mesi (se la temperatura di conservazione è inferiore a 25°C), per ricaricare le batterie. Diversamente, la batteria si degraderà in modo irreversibile.
◗ Durante la sostituzione delle batterie interne dell'UPS, è tassativo utilizzare lo stesso numero e lo stesso tipo di elementi di quelli previamente montati nell'apparecchio e ciò per garantire un buon livello di funzionamento e di sicurezza dell'UPS. In caso di dubbi, rivolgersi senza indugiare al nostro servizio di assistenza in garanzia (recapito nel sito web www.mgeops.com).

# ESPAÑOL

## Consignas de seguridad

### Leer imperativamente antes de instalar el producto

#### Seguridad de personas

◗ El UPS dispone de su propia fuente de energía interna (batería). Las tomas de salida pueden, por lo tanto, estar bajo tensión, incluso cuando el UPS está desconectado de la red eléctrica.
◗ Presencia de tensión peligrosa dentro del UPS. Sólo un personal cualificado puede abrirlo.
◗ El UPS debe imperativamente estar conectado a la tierra. En el momento de la instalación, asegúrese de que la suma de las corrientes de fuga del UPS y de los equipos que alimenta no supere 3.5 mA comprobando sus características.
◗ Los SAI y las baterías deberán ser colocados en una estancia o en un compartimento ventilado. Estos aparatos deben ser utilizados en un enterno interior controlado.
◗ La batería que se entrega con el UPS contiene una cantidad reducida de sustancias tóxicas. Para evitar todo accidente, deben respetarse las instrucciones indicadas a continuación:
– No tire la batería al fuego (peligro de explosión).
– No intente abrir la batería (electrólito peligroso para los ojos y la piel).
– El desecho debe realizarse conforme con la normativa vigente.
– La batería presenta peligros eléctricos (choques eléctricos, quemaduras). La corriente de cortocircuito puede ser muy importante. Tome precauciones para las manipulaciones: quítese reloj, anillos, pulseras o cualquier otro objeto metálico y utilice herramientas aisladas.

#### Product safety

◗ Respete imperativamente el orden de las instrucciones de conexión y puesta en marcha descritas en el manual.
◗ EL UPS deberá conectarse a una toma de alimentación situada a proximidad y de fácil acceso. La separación de la red eléctrica se efectúa desconectando el cordón de alimentación.
◗ Compruebe las indicaciones que aparecen en la placa de identificación: deben corresponder a su red eléctrica de alimentación y al consumo eléctrico real de todos los equipos conectados.
◗ No coloque el UPS cerca de líquido ni en entorno excesivamente húmedo.
◗ No deje ningún objeto extraño penetrar dentro del UPS.
◗ No obture las rejillas de ventilación del UPS.
◗ No deje el UPS al sol ni cerca de una fuente de calor.
◗ En caso de almacenamiento previo a la puesta en marcha, coloque el UPS en lugar seco y protegido de la humedad.
◗ Temperatura de almacenamiento: -25° C a +55° C.

#### Precauciones particulares

◗ Cuando se pone en servicio por primera vez, después de conectarla a la red eléctrica, la batería se carga. La carga completa que permite una autonomía nominal sólo se alcanzará después de 8 horas de carga al menos.
◗ Antes y después de la instalación, si el UPS debe permanecer fuera de tensión durante largo tiempo, póngalo bajo tensión durante 24 horas, una vez cada 6 meses al menos (en caso de temperatura de almacenamiento inferior a 25° C), con el fin de recargar las baterías, de lo contrario, podría sufrir daños irreversibles.
◗ Cuando sustituya las baterías internas del UPS, es imperativo utilizar el mismo número y el mismo tipo de elementos de batería que los que van montados en el aparato, lo que garantizará el correcto funcionamiento y seguridad del UPS. En caso de incertidumbre, no dude en contactar con nuestro servicio de postventa (datos en el sitio web www.mgeops.com).

# NEDERLANDS

## Veiligheidsvoorschriften

### Lees de instructies voordat u het product installeert

#### Veiligheid van personen

◗ De UPS is voorzien van een eigen interne energiebron (accu).
De uitgangsstekkerbussen kunnen dus onder spanning staan, zelfs als de UPS is losgekoppeld van het leidingnet.
◗ Aanwezigheid van gevaarlijke spanning aan de binnenkant van de UPS. De UPS mag uitsluitend worden geopend door geschoold personeel.
◗ De UPS moet verplicht geaard zijn. Controleer tijdens het installeren of de lekstroom van de UPS en de apparaten die door de UPS worden gevoed niet hoger dan 3.5 mA is. U doet dit door hun eigenschappen te controleren.
◗ De UPS'en en hun accus' moeten worden geïnstalleerd in een geventileerde ruimte of vak. Deze apparaten mogen uitsluitend worden gebruikt in een klimaatgeregelde ruimte.
◗ De bij de UPS meegeleverde accu bevat een kleine hoeveelheid giftige stoffen. Om ongevallen te voorkomen dienen de volgende voorschriften te worden opgevolgd:
– Gooi de accu niet in het vuur (explosiegevaar).
– Probeer de accu niet te openen (de elektrolyt is gevaarlijk voor de ogen en de huid).
– Het wegdoen van de accu dient te gebeuren conform de geldende wetgeving.
– De accu is niet vrij van elektrische risico's (elektrische schokken, brandwonden). Er kan een zeer hoge kortsluitstroom vrijkomen. U dient de volgende voorzorgsmaatregelen in acht te nemen als u met de accu werkt: verwijder uw horloge, ringen, armbanden of andere metalen voorwerpen en gebruik geïsoleerd gereedschap.

#### Productveiligheid

◗ Neem de volgorde van de instructies voor het aansluiten en in werking stellen in acht zoals beschreven in deze handleiding.
◗ De UPS moet worden aangesloten op een stopcontact dat in de buurt en gemakkelijk toegankelijk is. De scheiding van het elektriciteitsnet geschiedt door het loskoppelen van de voedingskabel.
◗ Lees de aanwijzingen op de identificatieplaat: deze moeten overeenkomen met de eigenschappen van uw elektriciteitsnet en het werkelijke elektriciteitsverbruik van alle aangesloten apparaten.
◗ Installeer de UPS niet in de buurt van vloeistof of in een overmatig vochtige omgeving.
◗ Zorg dat er geen vreemde voorwerpen in de binnenkant van de UPS terechtkomen.
◗ De ventilatieopeningen van de UPS niet afdekken.
◗ De UPS niet blootstellen aan zonlicht of aan een warmtebron.
◗ In geval van opslag dient u de UPS eerst in een droge ruimte te plaatsen voordat u hem in gebruik neemt.
◗ Opslagtemperatuur: -25° C tot +55° C.

#### Bijzondere voorzorgsmaatregelen

◗ Bij de eerste ingebruikneming wordt de accu geladen zodra hij wordt aangesloten op het elektriciteitsnet. De accu beschikt pas over de nominale autonomie na ten minste 8 uur laden.
◗ Als de UPS voor of na het installeren voor een langdurige periode zonder spanning blijven, moet hij ten minste één maal in de zes maanden 24 uur lang onder spanning worden gezet (in geval van een opslagtemperatuur lager dan 25° C), om de accu's bij te laden. Zoniet kunnen zij hierdoor permanent beschadigd raken.
◗ Bij het vervangen van de interne accu's van de UPS is het noodzakelijk om hetzelfde aantal en hetzelfde type accu-elementen te gebruiken als die welke in het apparaat zijn gemonteerd. Dit is noodzakelijk om verzekerd te zijn van een goede en veilige werking van de UPS. In geval van twijfel kunt u een beroep doen op onze klantenservice (Internetadres: www.mgeops.com).

# РУССКИЙ

## Важные указания по мерам безопасности

### Прочитайте перед выполнением любых работ по установке изделия

#### Личная безопасность

◗ В АБП имеется собственный источник энергии (аккумулятор), поэтому на его выходных разъемах напряжение может присутствовать даже тогда, когда АБП отключен от электросети.

◗ Наличие опасного напряжения внутри АБП. Открывать прибор может только квалифицированный персонал.

◗ АБП должен быть обязательно заземлен. При установке следует убедиться в том, что сумма токов утечки АБП и питаемого им оборудования не превышает 3,5 мА, проверив характеристики этого оборудования.

◗ АБП и их аккумуляторы должны устанавливаться в помещении или в ячейке с вентиляцией. АБП могут использоваться только в закрытом помещении с кондиционированием воздуха.

Аккумулятор, поставляемый с АБП, содержит небольшое ◗ количество токсичных веществ Во избежание несчастных случаев следует соблюдать следующие правила:

- Не бросать аккумулятор в огонь (опасность взрыва).
- Не пытаться открыть аккумулятор (электролит представляет опасность для глаз и кожи).
- Утилизация аккумулятора должна выполняться в соответствии с действующим законодательством.
- Аккумулятор является источником опасностей, связанных с электричеством (поражение электрическим током, ожоги). Ток короткого замыкания может быть весьма большим. При работах следует принять меры предосторожности: снять часы, кольца, браслеты и любые другие металлические предметы, использовать только изолированный инструмент.

#### Безопасность изделия

◗ Неукоснительно соблюдать предписанный порядок выполнения соединений и ввода в эксплуатацию, указанный в настоящем руководстве.

◗ АБП должен подключаться к расположенной поблизости и легко доступной сетевой розетке. Отсоединение от электросети осуществляется отключением вилки сетевого кабеля.

◗ Проверить значения, приведенные на паспортной табличке: они должны соответствовать параметрам вашей сети электропитания и фактической потребляемой мощности всего подключаемого электрооборудования.

◗ Запрещается устанавливать АБП рядом с жидкостями и в местах с повышенной влажностью.

◗ Не допускать попадания посторонних предметов внутрь АБП.

◗ Не загораживать вентиляционные решетки АБП.

◗ Не допускать воздействия на АБП солнечных лучей, не располагать его вблизи от источников тепла.

◗ В случае складирования перед вводом в эксплуатацию хранить АБП в месте, защищенном от воздействия влаги.

◗ Температура хранения: от – 25°C до + 55°C.

#### Специальные меры предосторожности

◗ При первоначальном вводе в эксплуатацию после подключения к сети происходит зарядка аккумулятора. Полная зарядка, обеспечивающая номинальную продолжительность автономной работы, достигается не менее чем после 8 часов зарядки.

◗ Если до или после установки АБП должен находиться не под напряжением в течение длительного промежутка времени, его следует включать на период не менее 24 часов не реже 1 раза в 6 месяцев (в случае хранения при температуре ниже 25°C), чтобы обеспечить подзарядку аккумулятора во избежание необратимого ухудшения его рабочих характеристик.

◗ При замене встроенного в АБП аккумулятора необходимо использовать аккумуляторные элементы в том же количестве и того же типа, что и установленные в аппарате, чтобы гарантированно обеспечивать высокую надежность и безопасность АБП. В случае сомнений обязательно обратитесь в отдел послепродажного обслуживания нашей компании (его координаты вы найдете на сайте HYPERLINK "http://www.mgeups" www.mgeops.com).

EATON | Powerware

# Powerware® 9135 Two-in-One UPS
# 5000/6000 VA
# User's Guide

ENGLISH

Thank you for selecting an **EATON** Powerware® product to protect your electrical equipment.

The **PW9135** range has been designed with the utmost care.
We recommended that you take the time to read this manual to take full advantage of the many features of your **UPS** (**U**ninterruptible **P**ower **S**ystem)

**Warning:** this is a class A UPS product. In a domestic environment, this product may cause radio interference, in wich case, the user may be required to take additional measures.
Output cables should not be longer than 10 meters.
If the device must be installed in overvoltage category III or IV envoronments, additional upstream overvoltage protection must be provided for.

Before installing **PW9135**, please read the booklet on the required safety instructions. Then follow the indications in this manual.

To discover the entire range of **EATON** Powerware® products and the options available for the **PW9135** range, we invite you to visit our web site at www.powerware.com or contact your **EATON** Powerware® representative.

## Environmental protection

**EATON** Powerware® has implemented an environmental-protection policy.
Products are developed according to an eco-design approach.

### Substances

This product does not contain CFCs, HCFCs or asbestos.

### Packing

To improve waste treatment and facilitate recycling, separate the various packing components.

- The cardboard we use comprises over 50% of recycled cardboard.
- Sacks and bags are made of polyethylene.
- Packing materials are recyclable and bear the appropriate identification symbol

.

| Material | Abbreviation | Symbol number |
|---|---|---|
| Polyethylene terephthalate | PET | 01 |
| High-density polyethylene | HDPE | 02 |
| Polyvinyl chloride | PVC | 03 |
| Low-density polyethylene | LDPE | 04 |
| Polypropylene | PP | 05 |
| Polystyrene | PS | 06 |

Follow all local regulations for the disposal of packing materials.

### End of life

**EATON** Powerware® will process products at the end of their service life in compliance with local regulations.
**EATON** Powerware® works with companies in charge of collecting and eliminating our products at the end of their service life.

- **Product**

The product is made up of recyclable materials.
Dismantling and destruction must take place in compliance with all local regulations concerning waste.
At the end of its service life, the product must be transported to a processing centre for electrical and electronic waste.

- **Battery**

The product contains lead-acid batteries that must be processed according to applicable local regulations concerning batteries.
The battery may be removed to comply with regulations and in view of correct disposal.

# Introduction

## Pictograms

Important instructions that must always be followed.

Information, advice, help.

Visual indication.

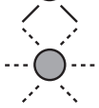
Action.

Audio signal.

**In the illustrations on the following pages, the symbols below are used:**

LED off

LED on



LED blinking

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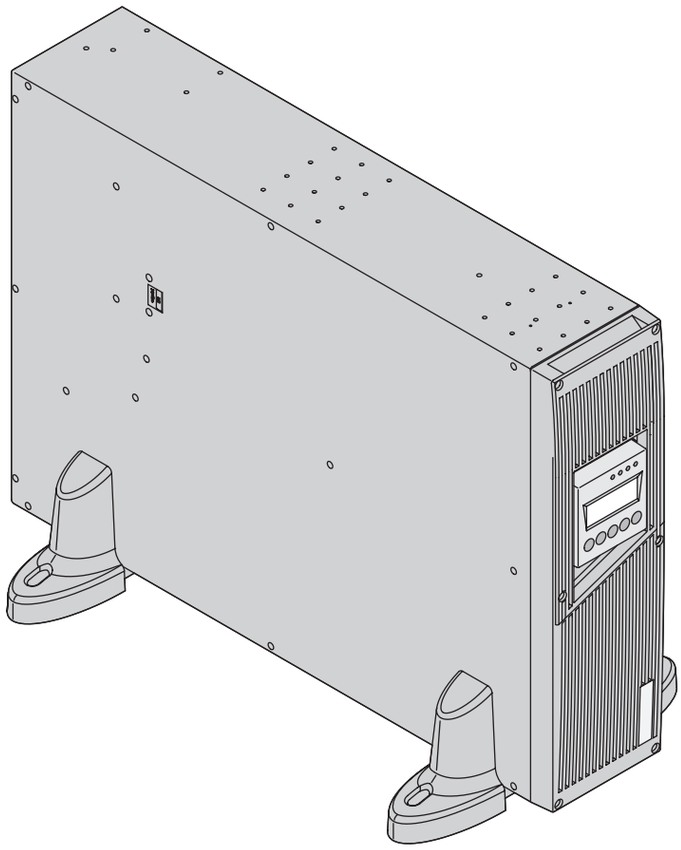
## 1.1 Standard positions

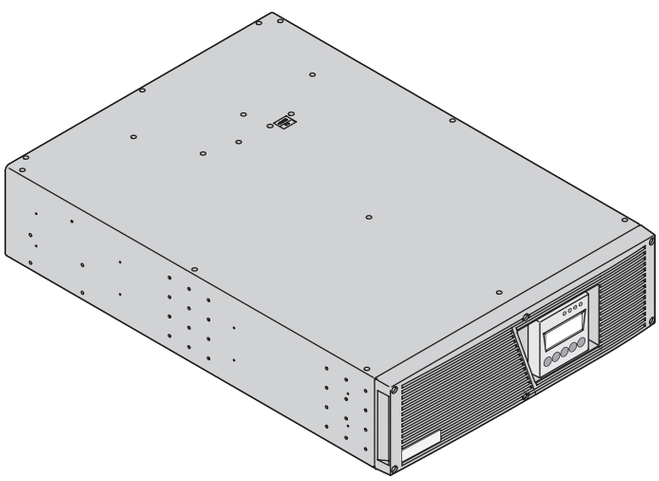
### Tower position



| Dimensions (H x W x D) in mm / Inches | |
|---|---|
| PW9135 5000 | 444.5 x 131 x 700 / 17.5 x 5.16 x 27.56 |
| PW9135 6000 | 444.5 x 131 x 700 / 17.5 x 5.16 x 27.56 |
| PW9135 EBM | 444.5 x 131 x 650 / 17.5 x 5.16 x 25.6 |

| Weights in kg / lbs | |
|---|---|
| PW9135 5000 | 57 / 125 |
| PW9135 6000 | 57 / 125 |
| PW9135 EBM | 70 / 154 |

### Rack position



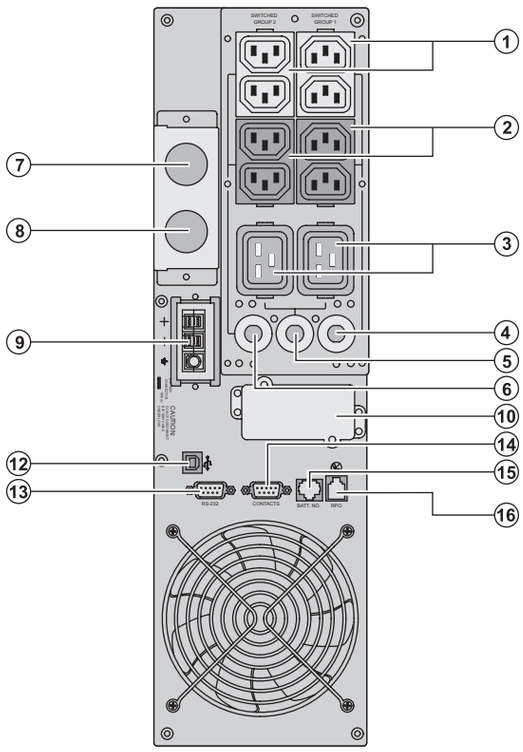
| Dimensions (H x W x D) in mm / Inches | |
|---|---|
| PW9135 5000 | 131 x 444.5 x 700 / 5.16 x 17.5 x 27.56 |
| PW9135 6000 | 131 x 444.5 x 700 / 5.16 x 17.5 x 27.56 |
| PW9135 EBM | 131 x 444.5 x 650 / 5.16 x 17.5 x 25.6 |

| Weights in kg / lbs | |
|---|---|
| PW9135 5000 | 57 / 125 |
| PW9135 6000 | 57 / 125 |
| PW9135 EBM | 70 / 154 |

# 1. Presentation

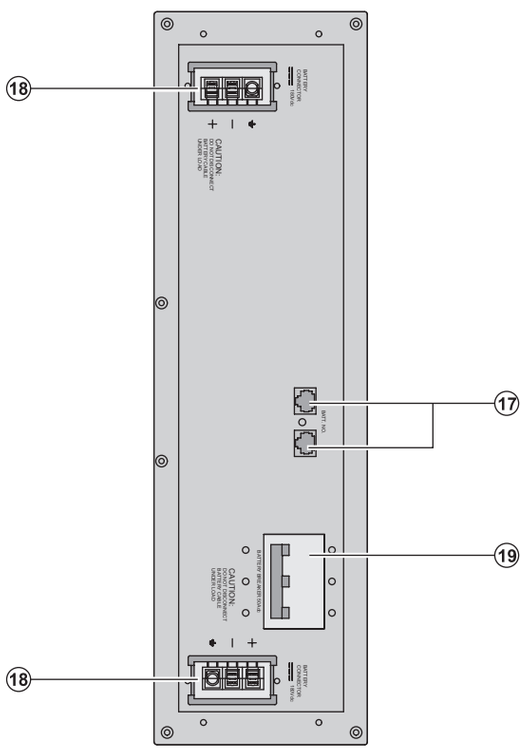
## 1.2 Rear panels

### PW9135 5000 / PW9135 6000



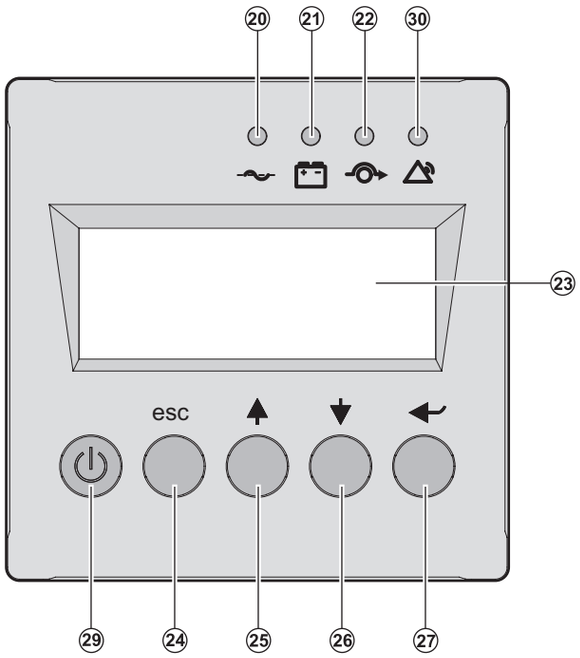

**(1)** Two groups of 2 programmable (10A) outlets for connection of equipment
**(2)** Groups of 4 (10A) outlets for connection of equipment
**(3)** Groups of 2 (16A) outlets for connection of equipment
**(4)** 12A thermal switch
**(5)** 20A thermal switch
**(6)** 12A thermal switch
**(7)** Output terminal block
**(8)** Normal AC source terminal block
**(9)** Connector for additional battery module
**(10)** Slot for optional communication card
**(12)** USB communication port
**(13)** RS232 communication port
**(14)** Communication port by relay
**(15)** Connector for automatic detection of battery module(s)
**(16)** Connector for Remote Power Off control (RPO)

### PW9135 EBM (optional battery module)




**(17)** Connectors for automatic detection of battery module(s)
**(18)** Connectors for battery modules (to the UPS or to the other battery modules)
**(19)** Battery circuit breaker

## 1.3 Display and control panel



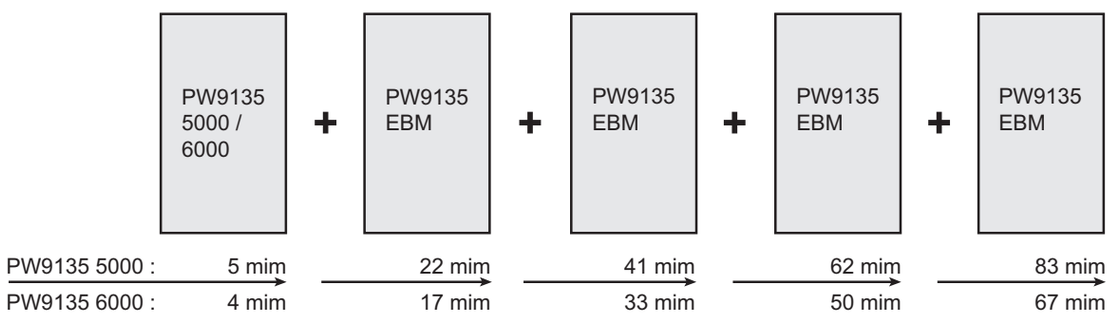

**(20)** Load powered LED
**(21)** Operation on battery LED
**(22)** Operation on bypass LED
**(23)** Alphanumeric display
**(24)** Escape (cancel) button
**(25) (26)** Function buttons (scroll down / scroll up)
**(27)** Enter (confirm) button
**(29)** UPS ON/OFF button
**(30)** Fault LED

## 1.4 Options

### Battery extensions for UPS backup times up to 80 minutes (at full load)

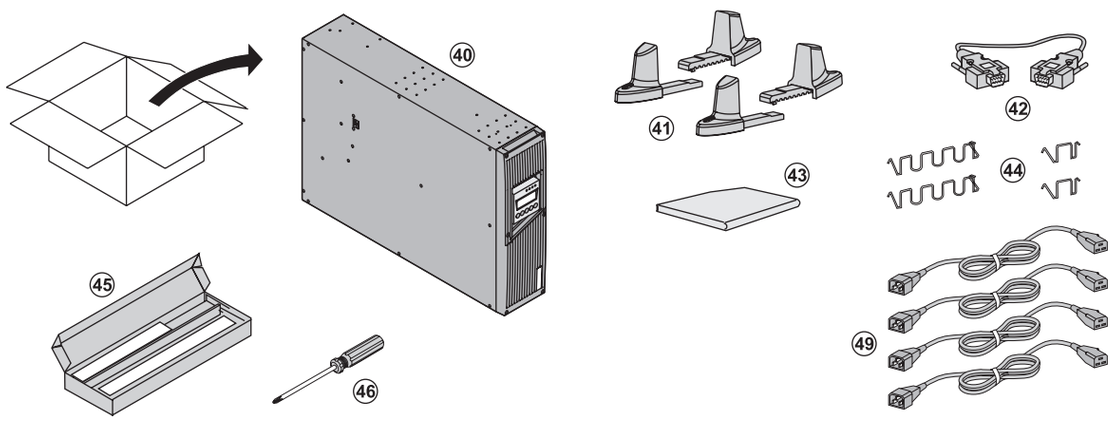
**PW9135** offers a standard backup time of 4/5 minutes at full load.
To increase backup time, it is possible to connect **PW9135 EBM** modules to the UPSs.

**Battery extensions for PW9135**



# 2. Installation

## 2.1 Unpacking and contents check




**(40) PW9135 5000** or **6000** UPS.

**(41)** Two sets of tower stands.

**(42)** RS232 communications cable.

**(43)** Product documentation.

**(44)** 4 cable lockers.

**(45)** Telescopic rails for rack enclosure with mounting hardware.

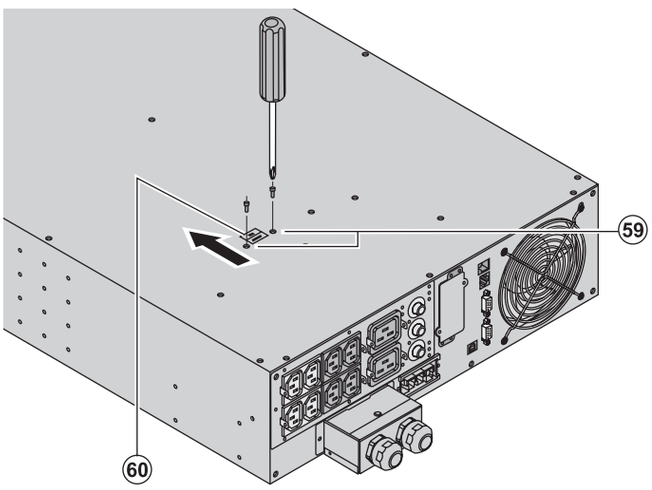
**(46)** Screw driver.

**(49)** 4 IEC 10A output cables.

Packaging must be destroyed according to waste management standards. Recycling icons are displayed for easy selection.

**A dangerous voltage is present inside the power module and the battery module. Any operations to be carried out on these modules must be done so by qualified staff.**

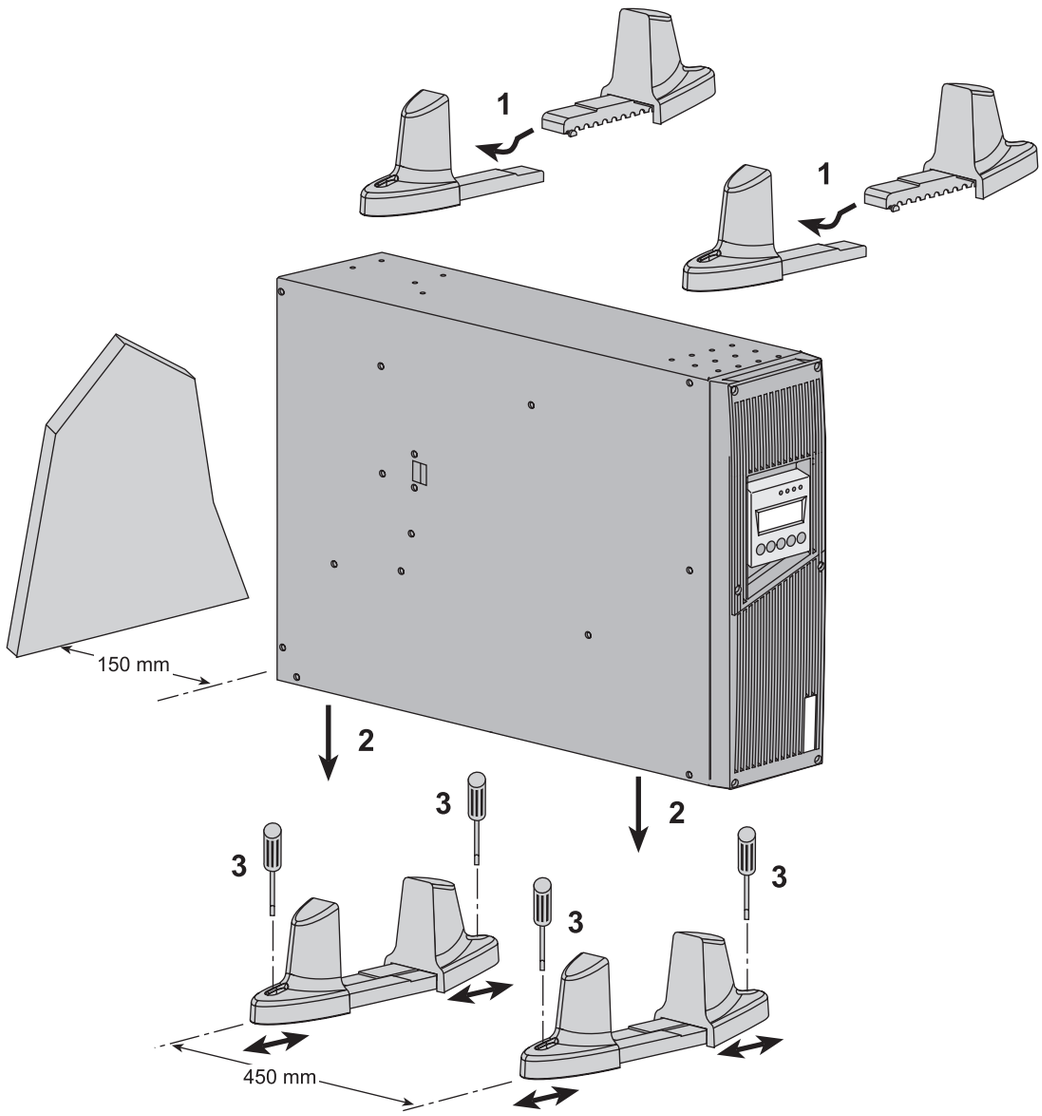
## 2.2 Internal battery connection (Battery start-up)




1 - Remove the two fixing screws **(59)** to free the battery connector.
2 - Push the battery connector so that you can read "Connected".
3 - Secure the two fixing screws **(59)**.

## 2.3 Installation in tower position

Follow steps 1 to 3 to adjust the tower stands for the upright position.

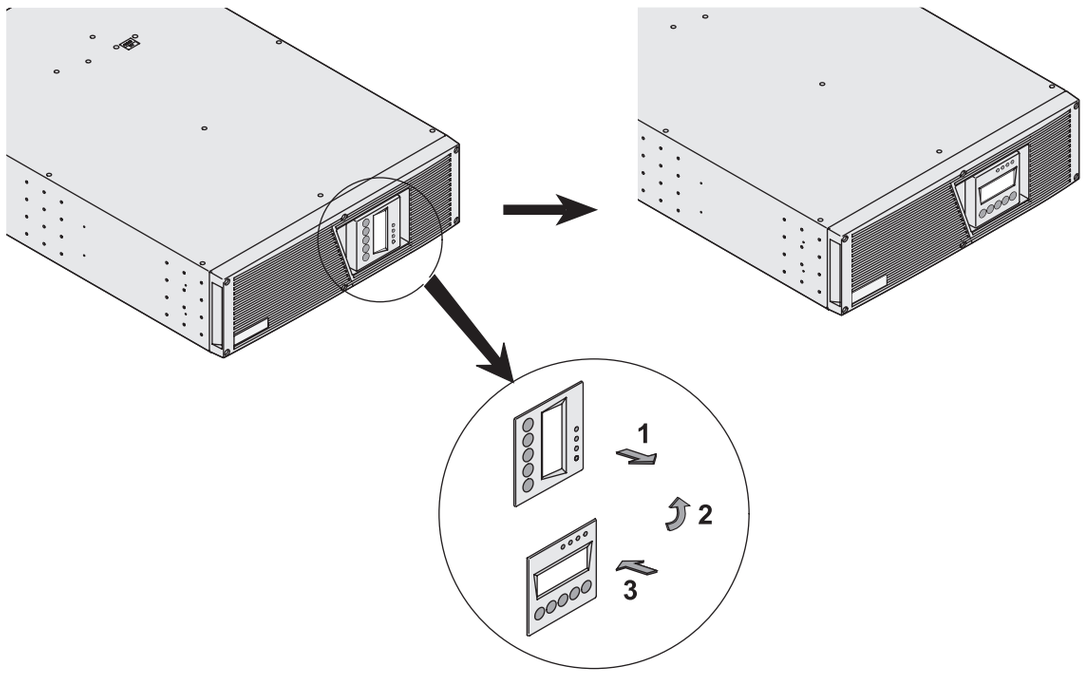



**Always keep 150 mm free space behind the UPS rear panel.**
**The distance between the tower stands should be 450 mm.**

# 2. Installation

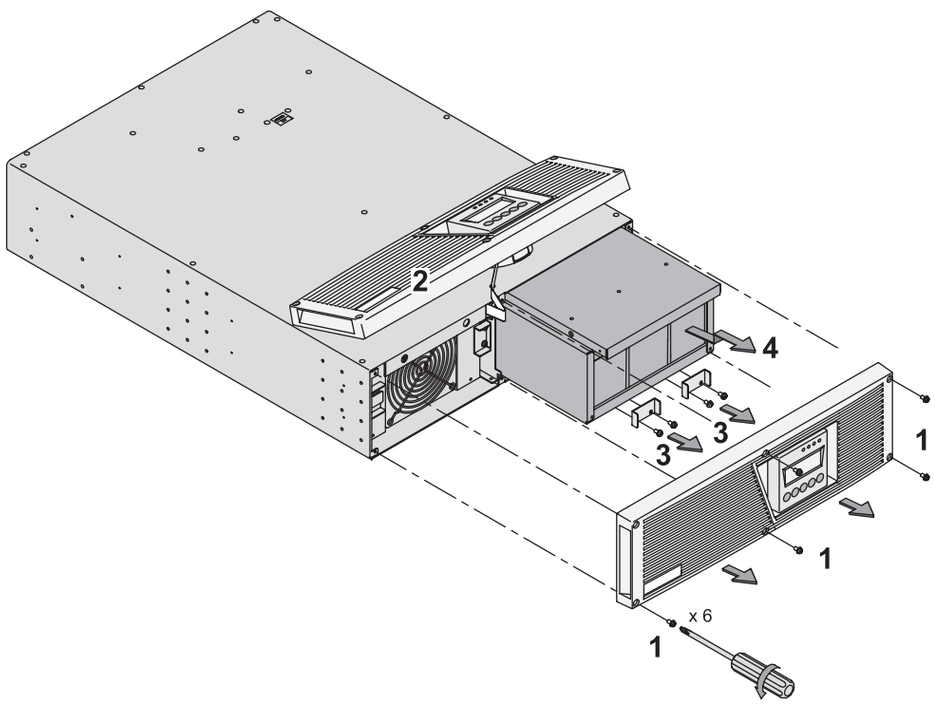
## 2.4 Installation in rack position

### Adjustment of the orientation of the logo and control panel




### UPS module rack mounting

**PW9135** is very heavy. To ease its rack integration, we strongly recommend to remove the battery tray as shown below:

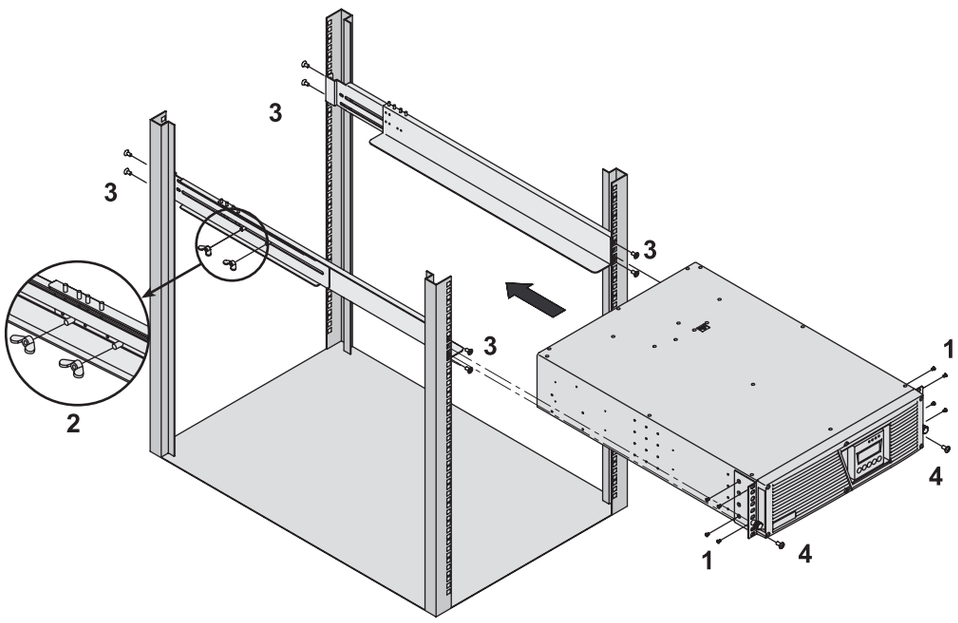



1 - Remove the 6 fixing screws to free the main front panel bezel.
2 - Place the front panel above the UPS.
3 - Remove the 4 fixing screws on the right side to free the battery sub-module.
4 - Pull the battery sub-module slightly, then lift it to extract it.

## UPS or battery module rack mounting

**It is not allowed to install the UPS or battery module in a hermetically closed environment without any exchange of air.**

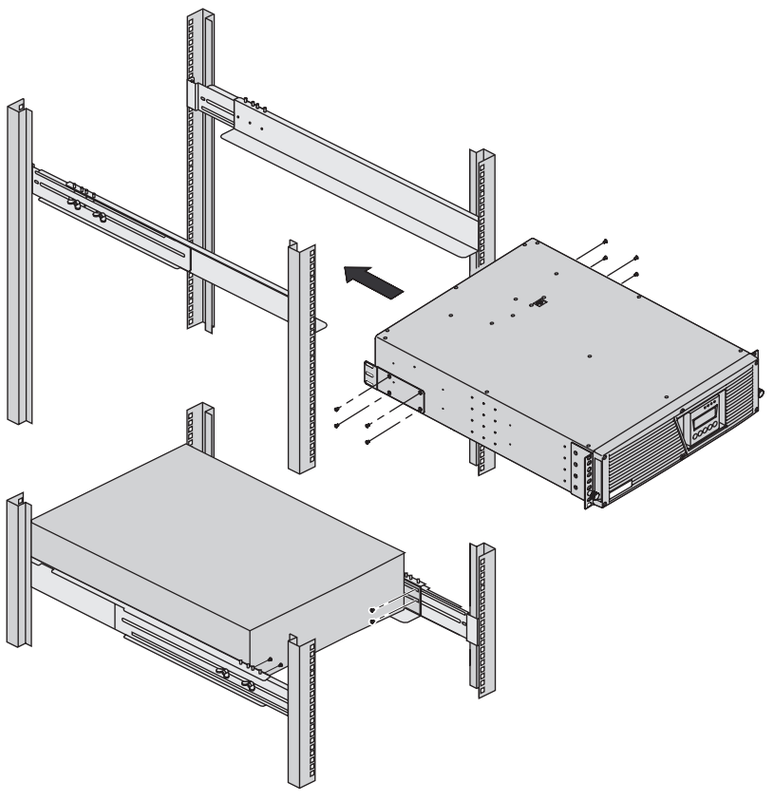
**Follow steps 1 to 4 for rack mounting the UPS onto the rails.**




The rails and the necessary mounting hardware are supplied by **EATON** Powerware®.

**Note for step 1**: it is possible to adjust the position of both front mounting ears.

**Rear bracket system** (included with rail kits)
To be used if you need to move the rack enclosure with UPS already rack-mounted inside.

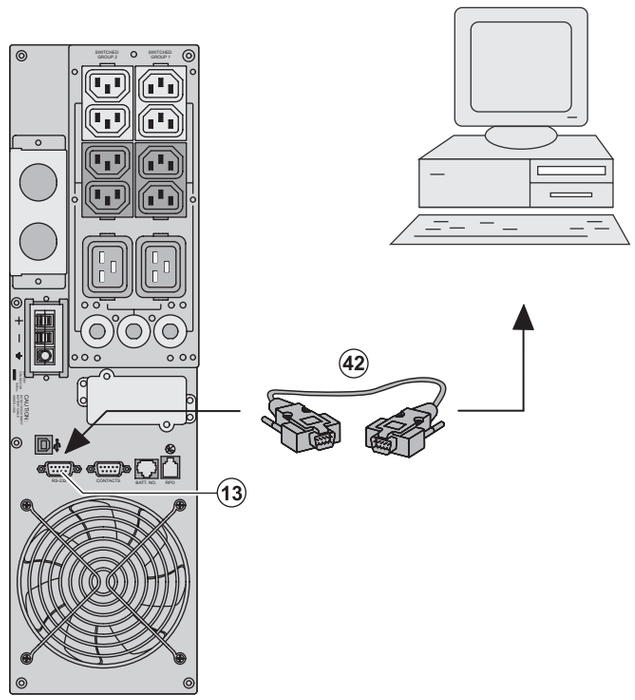


# 2. Installation

## 2.5 Communication ports

**PW9135** provides 3 communication methods that can be used simultaneously:
- 2 COM ports provide RS232 or USB communications using **EATON** Powerware® SHUT protocol. Compatible with most power management software applications. Please, note that both ports cannot be used at the same time.
- The output contact port is used for basic signaling or for protection of IT systems like IBM iSeries (formerly AS400) and more.
- The slot is compatible with **EATON** Powerware® communication card (check **www.powerware.com** web site for the complete list of compatible cards).

### Connection to the RS232 communication port



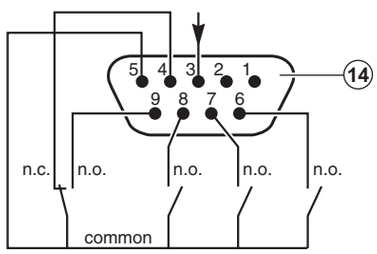

1 - Connect the RS232 **(42)** communications cable to the serial port on the computer equipment.

2 - Connect the other end of the communication cable **(42)** to the RS232 **(13)** communications port on the UPS.

The **UPS** can now communicate with various **EATON** Powerware® power management application software.

### Connection to the communication port by relays (14)

(see page 8)




- Pin 1, 2: not used,
- Pin 3: remote Power Off signal (5 to 27 V DC, 10 mA max),
- Pin 4: operation on mains (not on battery),
- Pin 5: user common,
- Pin 6: operation on automatic by-pass,
- Pin 7: low battery,
- Pin 8: load protected,
- Pin 9: operation on battery.

n.o.: contact normally open.
n.c.: contact normally closed.

When the status is active, the contact between the common (Pin 5) and the relevant information pin is closed.

Output relays specifications
- Voltage: 48 V DC max,
- Current: 2 A max,
- Power: 62,5 VA, 30 W.

Example: for 48 V DC, Imax=625 mA

## Remote Power Off communication port (16)

(see page 8)

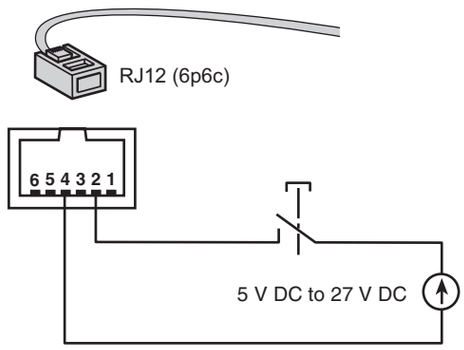
Installation of a Remote Power Off function must be carried out in compliance with applicable regulations.
In order to fully de-energize devices and **PW9135** with the RPO port, it is necessary:
- to use a two-position switch (Normally Open or Closed contact should be held more than 1 second to be taken into account).
- to connect to this RPO switch a device that allows to trip all breaker(s) located upstream(1) and downstream(2) PW9135.
This can be achieved by means of a shunt trip.

(1) : If not, the output devices could be powered again through static switch when the two-position switch is released.
(2) : If not, the output devices will remain powered several seconds after the RPO activation.

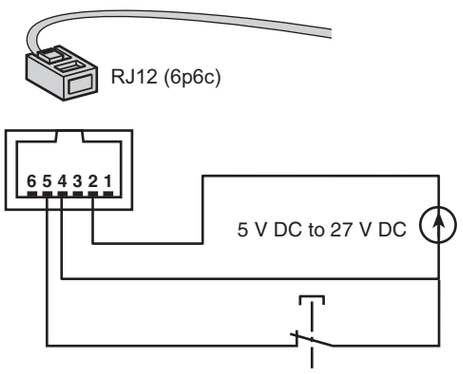
Please, notice that the internal batteries will remain connected to the power sub-module after RPO activation.

The cable is not included.

**Remote power off contact normally open**

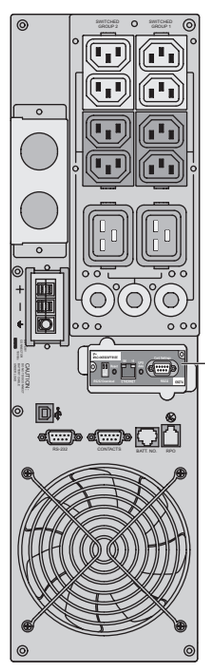



**Remote power off contact normally closed**




- Signal:
- activation voltage: 5 V DC to 27 V DC.
- current: 10 mA max.

## Installation of communication cards (optional)




It is not necessary to shutdown the UPS before installing a communications card.

1 - Remove the slot cover secured by two screws.
2 - Insert the communications card in the slot.
3 - Secure the card with both screws.

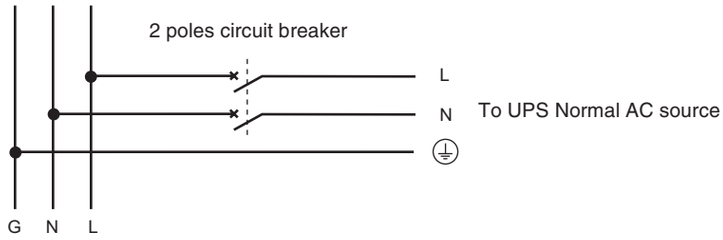
# 2. Installation

## 2.6 Required protective devices and cable cross-sections

### Recommended upstream protection

| UPS power rating | Upstream circuit breaker |
|---|---|
| PW9135 5000 | D curve - 32A |
| PW9135 6000 | D curve - 32A |

The indicated protection ensures discrimination for each output circuit downstream of the UPS.
If these recommendations are not followed, protection discrimination is not achieved and may result in a potential power interruption to the connected devices.




### Recommended downstream protection

| UPS power rating | Downstream circuit breaker |
|---|---|
| PW9135 5000 | Z curve - 10A |
| | C curve - 4A |
| PW9135 6000 | Z curve - 10A |
| | C curve - 6A |

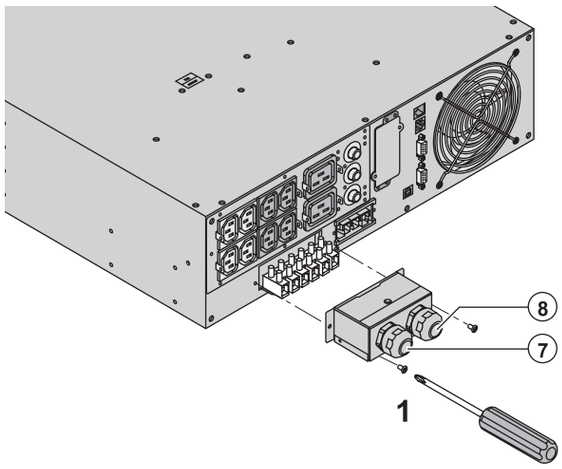
The indicated protection ensures discrimination for each output circuit downstream of the UPS.
If these recommendations are not followed, protection discrimination is not achieved and may result in a potential power interruption to the connected devices.

### Required cable cross-sections

- Terminal-block cable capacity: 6 $mm^2$, solid or stranded wire (maximum 8 $mm^2$ or AWG 8).
- Capacity for earthing conductor: 6 $mm^2$, solid or stranded wire (maximum 8 $mm^2$ or AWG 8).

## 2.7 Connection of input/output power cables on UPS terminals

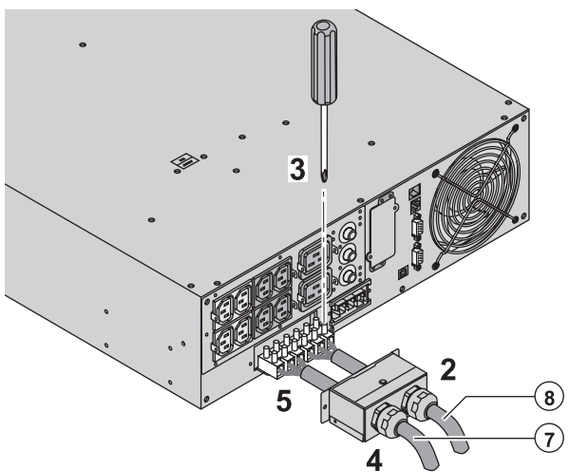
- This type of connection must be carried out by qualified electrical personnel.
- Before carrying out any connection, check that the battery circuit breaker **(19)** (see page 8) and that the upstream protection device (Normal AC source) is open ("0").
- Use included insulated ferrules with stranded wires.

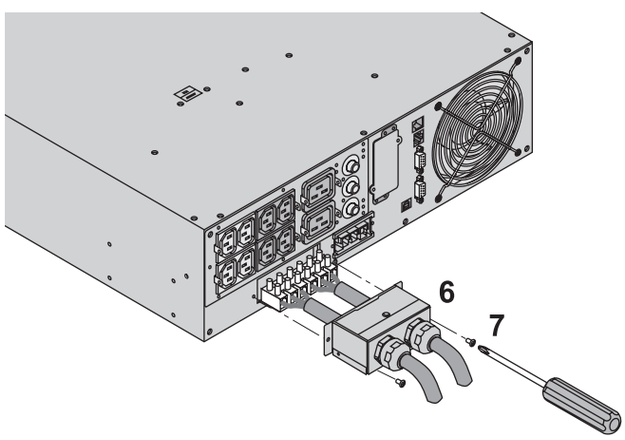



1 - Remove the terminal block cover (2 screws) with the included screwdriver.
2 - Insert the Normal AC cable through the cable gland **(8)**.
3 - Connect the 3 wires to the Normal AC terminal block.

**Always connect first the earthing wire.**

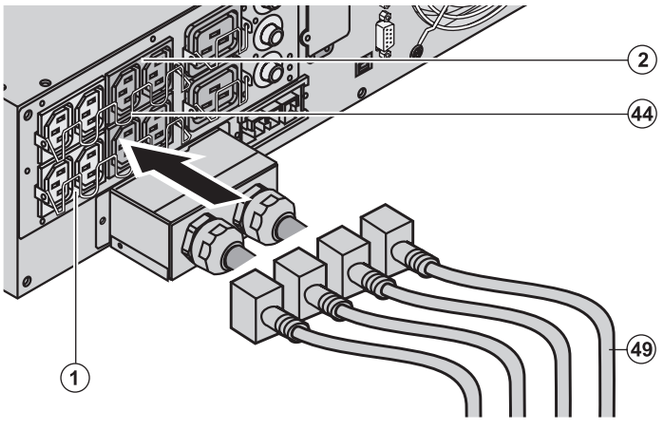
4 - Insert the output cable through the cable gland **(7)**.
5 - Connect the 3 wires to the output terminal block.
6 - Refit the terminal block cover and tighten the cable glands.
7 - Secure the terminal block cover by means of 2 screws.



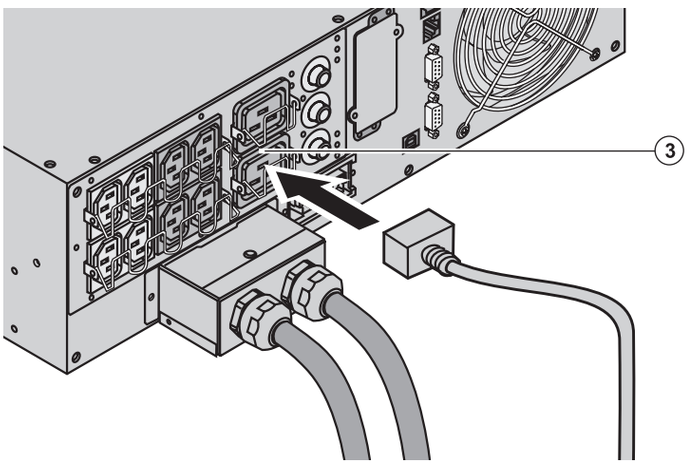



# 2. Installation

## 2.8 Connection of IEC cables to output receptacles

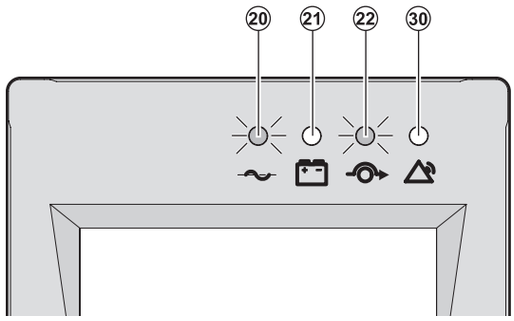



1 - Connect the equipments to the UPS using the cables **(49)**.
It is preferable to connect the priority equipments to the four outlets **(2)** and the non priority equipments to the four outlets **(1)** that can be programmed in pairs (1 and 2).
Connect any high-power devices to the 16 A outlet **(3)**
To program shutdown of outlets **(2)** during operation on battery power and thus optimise the available backup time, the **EATON** Powerware® communication software is required.




2 - Fit the connection securing system **(44)** that prevents the plugs from being pulled out accidentally.

## 3.1 Initial start-up




1 - Check that the battery switch **(60)** (see section 2.2, page 10) on top cover is connected.
2 - Set the upstream circuit breaker (not included) to the "ON/OFF" position (ON).

**The equipments are powered via the Normal AC source, but not protected by the UPS.**

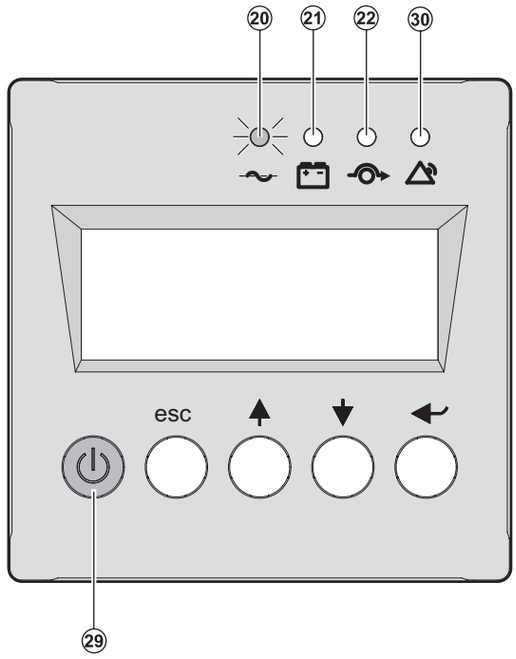
Batteries are recharging, an 8 hour recharge period is necessary to get full backup time.

LEDs **(20)** and **(22)** are ON.

**UPS personalisation**

If UPS personalisation is desired, it is advised to enter the personalisation mode at this time (see the 4.4 "Personalisation" section).

## 3.2 Final start-up sequence




3- Press the "ON/OFF" button **(29)** more than 3s.

The buzzer beeps once, and after UPS internal test sequence, the LED **(20)** is ON.

LED **(20)** is ON.

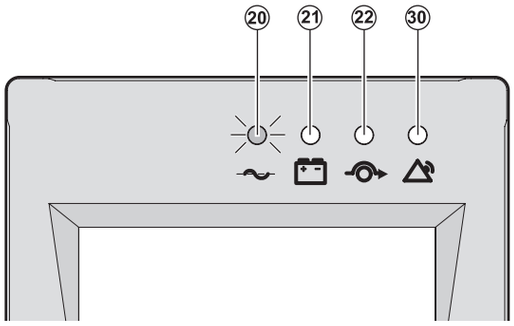
**The equipments are protected by the UPS.**

If LED **(30)** is ON, an alarm has occurred (see the "troubleshooting" section).

# 3. Operation

## 3.3 Operating modes

### Normal mode

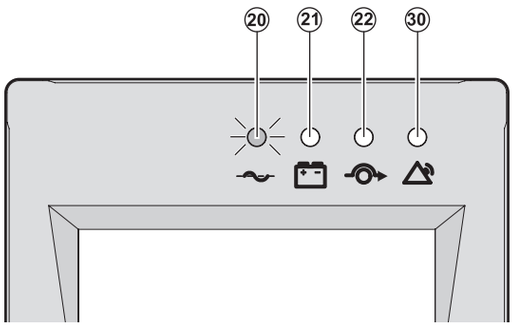



This is the standard operating mode, set by default in the factory.

Under normal condition (Normal AC source available):
LED **(20)** is ON.

**The equipments are protected by the UPS.**

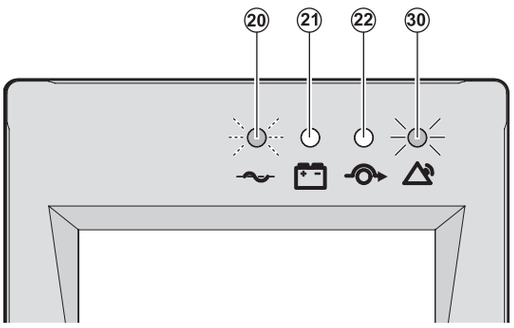
### Eco mode




The main advantage of the Eco mode (see glossary) is that it reduces the consumption of electrical power.

Under normal condition (Normal AC source available):
LED **(20)** is ON.

**The equipments are supplied in ECO mode.**



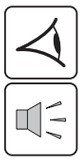

If normal AC source is out of tolerance:
LED **(20)**, is flashing.
LED **(30)**, is ON.

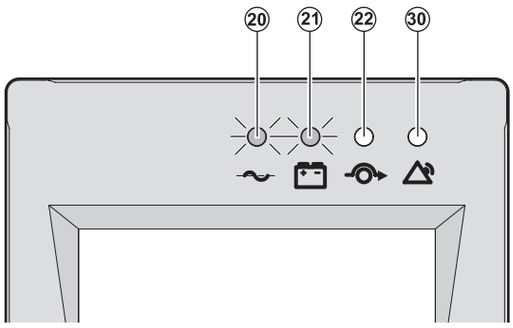
**The equipments are protected by the UPS.**

## 3.4 Operation on battery power

When the Normal AC source is not available, the load continues to be protected by the UPS.
Power is supplied by the battery.

**Transfer to battery power**





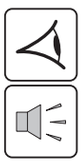

LEDs **(20)**, **(21)** are ON.

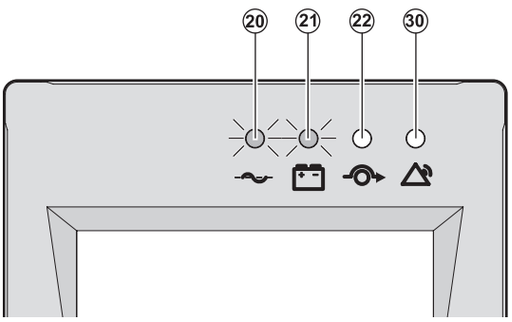
The audio alarm beeps every 10 seconds.

**The equipments are protected by the UPS and supplied by the battery.**

The display indicates the battery remaining backup time.

**Low battery warning**





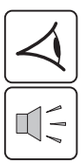

LEDs **(20)**, **(21)** are ON.

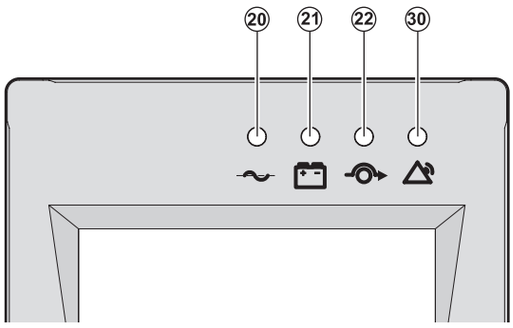
The audio alarm beeps every 3 seconds.

**The remaining battery power is low.**

Shut down all applications on the connected equipment because automatic UPS shutdown is imminent.

**End of backup time**






No LED

The audio alarm beeps continuously.

**The equipments are not powered.**

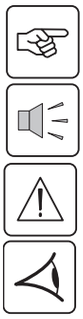
The UPS displays "End of backup time Battery low".

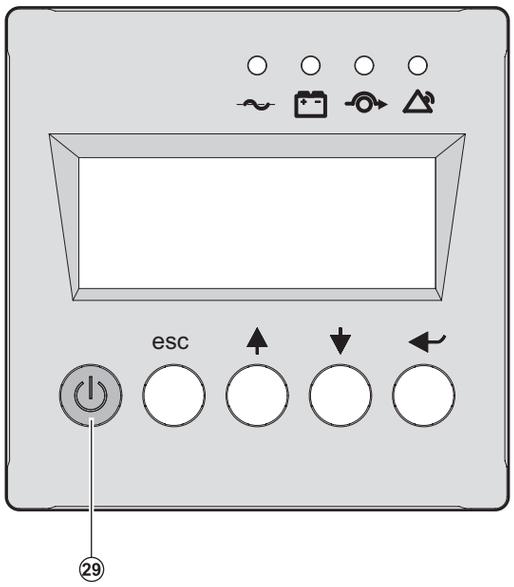
## 3.5 Return on Normal AC source

After an outage, the UPS restarts automatically when Normal AC source is restored (unless this function has been disabled via UPS personalisation) and the load is supplied again.

# 3. Operation

## 3.6 UPS shutdown






1 - Press the "ON/OFF" button **(29)** more than 3s.

**The buzzer beeps once, and the load is no longer protected by the UPS. It is powered via the Normal AC source. If the UPS is set in frequency converter mode, the equipments will not be powered.**

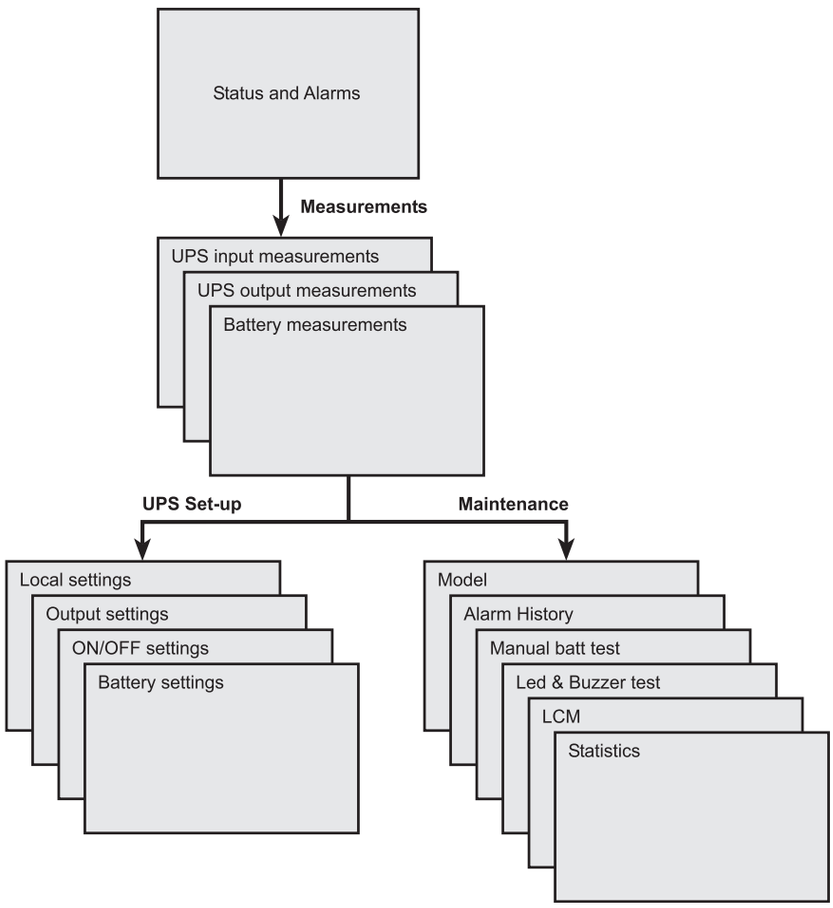
**If the Normal AC source is out of tolerance, the UPS will generate a 10ms output calibrated break.**

2 - For a full shutdown of UPS and connected load, the upstream circuit breaker (not included) should be set to the "0" position.

# 4. Access to measurements and personalisation data



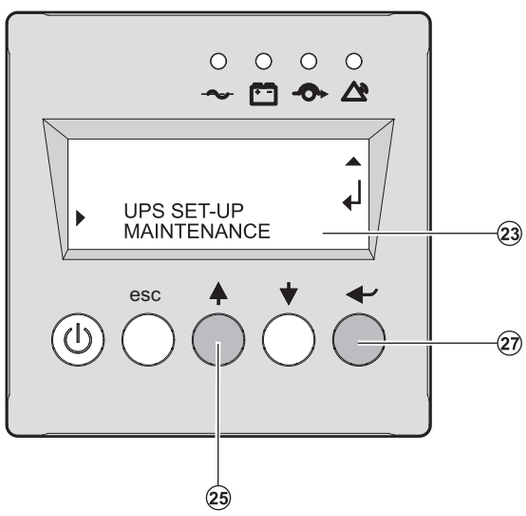
## 4.1 Display organisation




## 4.2 Access to measurements

Press the scroll button **(26)** (see section 1.3, page 9) to access measurements for voltage, current, frequency, power output and battery capacity.

## 4.3 Access to UPS set-up and maintenance using the control panel (23)




- Press the scroll button **(25)** a number of times to point the **UPS set-up** or **Maintenance** menu
- Press the Enter button **(27)** to get access.

# 4. Access to measurements and personalisation data

## 4.4 UPS set-up

**Local settings**

| Function | Factory setting | Options |
|---|---|---|
| **Language** | English | French, German, Italian, Portuguese, Spanish |
| **Date / Time Format** | International (DD-MM-YYYY/HH :MM) | US (MM-DD-YYYY/HH:MM AM/PM) |
| **Date / Time Change** | GMT + 1 (Continental Europe) | MM-DD-YYYY/HH :MM adjustable |
| **Audible Alarm** | Yes | No |

**Output settings**

| Function | Factory setting | Options | Comments |
|---|---|---|---|
| **Output Voltage** | 230 V | 200 V / 208 V / 220 V / 240 V / 250 V | |
| **Freq Converter** | Disable | Enable | |
| **Output Frequency** | 50 Hz | 60 Hz | User selectable under frequency-converter mode |
| **Eco Mode** | Disable | Enable | See glossary |
| **Slew Rate** | 1 Hz / sec. | 0.5 Hz / sec. | |
| **Bypass Transfer If bypass Ac nok?** | Yes | No | Transfer to bypass if Normal AC source is out of tolerance |
| **Interrupt Time** | 10 ms | 20 ms, ..... , 200 ms | Break time calibration during load transfer on Normal AC source out of tolerance |
| **Overload Prealarm** | 105 % | 40 %, 50 %, 70 % | Alarm if threshold is overrun |

**ON/OFF settings**

| Function | Factory setting | Options | Comments |
|---|---|---|---|
| **Cold Start** | Disable | Enable | Start on battery |
| **Forced Reboot** | Enable | Disable | Enables automatic restart of the system even if Normal AC source is restored before the end of the shutdown sequence |
| **Auto Restart** | Enable | Disable | UPS restarts automatically when Normal AC source is restored |
| **Energy Saving** | Disable | Enable | Automatic shutdown on battery if output load level < 10 % |
| **Sleep Mode** | Enable | Disable | |
| **Remote Command** | Enable | Disable | Enables consideration of shutdown or restart orders from software to be authorised |

**Battery settings**

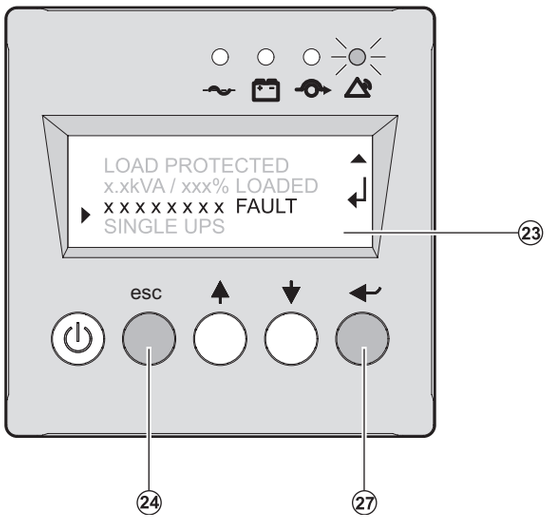
| Function | Factory setting | Options | Comments |
|---|---|---|---|
| **Auto Battery Test** | Everyweek | No test / everyday / everyweek /everymonth | |
| **Low Batt Warning** | 20% | 0 to 100% | 1% increment |
| **User Batt Settings** | UPS reads number of battery modules connected | From 0 to 95 Ah | 5 Ah increment |
| **Deep Disch Protect** | Yes | No | Protection against deep discharge. If disable, **EATON** Powerware® warranty will be void |

## 4.5 Maintenance

| Function | Sub-Function | Option / Display | Comments |
|---|---|---|---|
| **Model** | Power Module | SN: xxxxxxxxx<br>SOFT: xxx | Serial number<br>Soft version |
| | Frame | | |
| **Alarm History** | Read | Description<br>Date Hour<br>Alarm xxx | 10 alarms can be stored automatically |
| | Erase | No / Yes | |
| **Manual Batt Test** | Manual Battery Test | No / Yes | |
| **Led & Buzzer Test** | Led & Buzzer Test | No / Yes | |
| **Life Cycle Monitoring** | LCM | Enable / Disable | Life cycling monitoring alarms |
| **Statistics** | Auto Statistics | Statistics | |
| | Custom Statistics | Reset Date ?<br>Are you sure ? | |

# 5. Troubleshooting

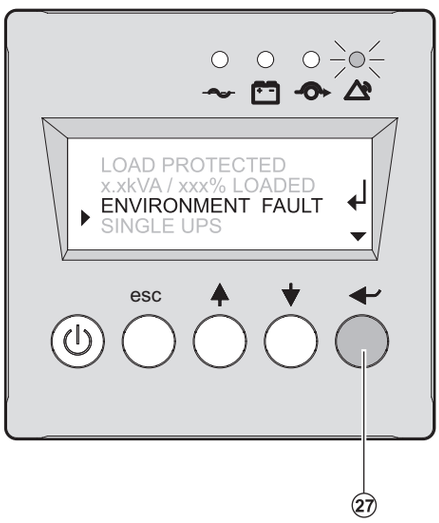
## 5.1 Troubleshooting LED (30)




Press the escape button **(24)** to stop the audible alarm.

**Note :**
In case of "MULTIPLE FAULT", press the "Enter" button **(27)** and the scroll button **(25)** to get access to further details.
In case of "LCM WARNING", refer to LCM section (see section 6).

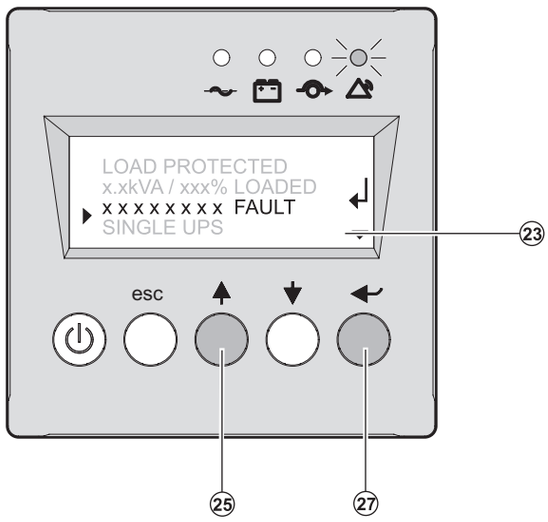
## 5.2 Troubleshooting not requiring EATON Powerware® after-sales support




Press the "Enter" button **(27)** to display the details below :

| Displayed details | Signification | Correction |
|---|---|---|
| NO BATTERY | The battery is incorrectly connected | Check battery connections |
| I/O BAD CONNECTION | AC source is not connected to the correct terminals | Check AC wiring |
| NO POWER MODULE | The power sub-module is not inserted | Check power sub-module connections (see section 7.1) |
| NO BATTERY MODULE | The battery sub-module is incorrectly connected | Check battery connections (see section 7.2) |
| INV THERM OVERLOAD | The UPS shuts down automatically because of a major overload. | Check the power drawn by the connected devices and disconnect any non-priority devices. |
| INVERT LIMITATION | Short circuit conditions on output devices | Check the installation at the UPS output (wiring, fault equipment) |

## 5.3 Troubleshooting requiring EATON Powerware® after-sales support



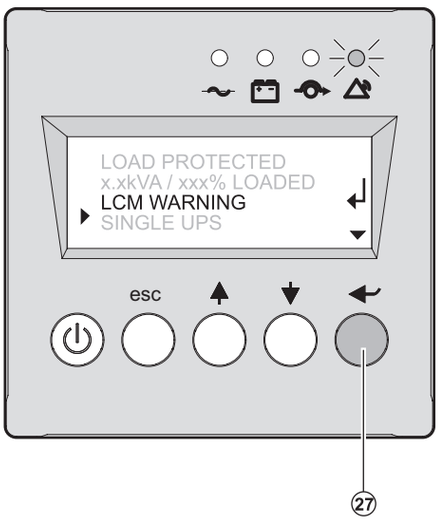

**Note:** In case of multiple fault, press the "Enter" button **(27)** and the scroll button **(25)** to get access to further details.

| Display | Signification | Correction |
|---|---|---|
| POWER MODULE FAULT | Internal power sub-module fault detected. Use "Enter" button **(27)** to display details.<br><br>In Parallel :<br>See the note below to start the other UPS alone. | Call the after-sales support department. Follow the power sub-module replacement procedure (see section 7.1) |
| BATT MODULE FAULT | Battery fault detected during the battery test. Use "Enter" button **(27)** to display details. | Call the after-sales support department. Follow the battery sub-module and battery module replacement procedure (see section 7.2) |
| FRAME FAULT | Internal chassis fault detected. Use "Enter" button **(27)** to display details. | Call the after-sales support department. |

# 6. Life Cycle Monitoring (LCM)

## 6.1 Description

**This function, embedded in the UPS, displays messages, on screen and communication channels, at every important stage of the UPS's life, allowing you to:**




Press the "Enter" button **(27)** to display LCM warning details.

### Secure your installation power continuity

Anticipate maintenance actions thanks to automatically displayed warnings while displaying automatic warnings when maintenance actions need to be planned :

| LCM warning details | Signification |
|---|---|
| BATTERY CHECK RECOMMENDED | Battery is approaching its reliability end of life. Risk to reduce dramatically backup time |

### Reset or disable LCM

In case of any LCM messages displayed:

- For temporary reset: press the escape button **(24)** more than 3 seconds, into Status and Alarm screen, to cancel temporary the alarm status.

The alert will be repeated twice each 30 days.

- For permanent reset: press the enter button **(27)** more than 3 seconds, into LCM warning screen, to cancel permanently this LCM event.

At any time:

To Disable all LCM messages select "disable all" ,into LCM menu with LCD navigation.

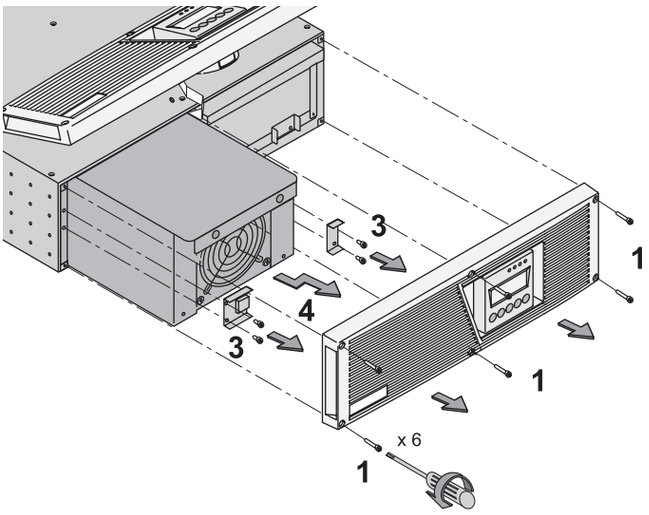
Be careful: you will not be aware of any LCM events that can happen on the UPS if you disable all LCM messages.

## 7.1 Hot swapping the power sub-module

**This operation must be carried out by qualified electrical personnel only.**

**This operation can be performed without interrupting the equipments.**

**Disconnecting the power sub-module :**




1 - Remove the 6 fixing screws to free the main front panel bezel.
2 - Place the front panel above the UPS.
3 - Remove the 4 fixing screws on the left side to free the power sub-module.
4 - Withdraw the power sub-module.

**Reconnecting the power sub-module :**

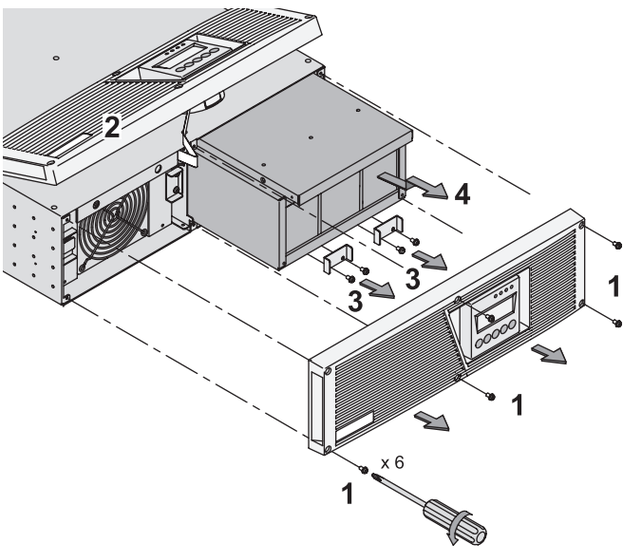
- Carry out the above instructions in reverse order.
- Replace the faulty power sub-module by another one with same power rating (**PW9135 5000** or **PW9135 6000**).

## 7.2 Hot swapping the battery sub-module

- **Caution: a battery can cause electrocution and high short circuit currents.**
- **Servicing of batteries should be performed or supervised by personel knowledgeable of batteries and the required precautions. Keep unauthorized personel away from batteries.**
- **Remove watches, rings, bracelets and all other metal objects from the hands and arms,**
- **Use tools with an insulated handle.**
- **When replacing batteries, replace with the same number of the BB/HR5.5-12 batteries.**

**This operation can be performed without interrupting the equipments.**

**Disconnecting the battery sub-module :**




1 - Remove the 6 fixing screws to free the main front panel bezel.
2 - Place the front panel above the UPS.
3 - Remove the 4 fixing screws on the right side to free the battery sub-module.
4 - Pull the battery sub-module slightly, then lift it to extract it.

**Reconnecting the battery sub-module :**

Carry out the above instructions in reverse order.

◗ **To ensure safety and high performance, use only batteries supplied by EATON Powerware®.**

# 8. Appendices

## 8.1 Technical specifications



| | PW9135 5000(5) | PW9135 6000(6) | PW9135 EBM(7) |
|---|---|---|---|
| **Output power** | 5000 VA /<br>3500 W | 6000 VA (1) /<br>4200 W | |
| **Electrical supply network**<br>◗ Rated input voltage<br>◗ Input voltage range<br>◗ Frequency<br>◗ Power factor<br>◗ Leakage current | Single phase 230 V<br>120 / 156 V to 280 V (2)<br>50/60 Hz (autoselection)<br>> 0.99<br>7 mA max. | | |
| **Load output**<br>◗ Voltage<br>◗ Frequency<br>◗ Harmonic distortion<br>◗ Overload capacity | Single phase 230 V ±3% (3)<br>50/60 Hz ±0,5% (4)<br>< 3%<br>105% continuous, 110% 2min,<br>125% 1min, > 150% 0.5s | | |
| **Battery** | 15 x 12V - 5 Ah,<br>sealed lead acid,<br>maintenance free | 15 x 12V - 5 Ah,<br>sealed lead acid,<br>maintenance free | Two 15 x 12 V - 5 Ah<br>strings, sealed lead acid,<br>maintenance free |
| **Environment**<br>◗ Operating temperature range<br>◗ Relative humidity<br>◗ Storage temperature range<br>◗ Altitude | 0°C to 40°C<br>20% to 90% (non-condensing)<br>-25°C to 40°C<br>0 to 1000 m without derating | | |
| ◗ Noise level | < 45 dBA | | |

(1) If the output voltage is 200V, the output power is 5400VA / 3780W.
(2) Values for 70% / 100% of UPS output.
(3) Programmable: 200V / 208V / 220V / **230V** / 240V / 250V using the **UPS Config** software.
(4) Frequency-converter mode is programmable using the **UPS Config** software.
(5) Model list: PW9135G5000-XL3UHW, PW9135G5000-XL3U, PW9135G5000-XL3UEU.
(6) Model list: PW9135G6000-XL3UHW, PW9135G6000-XL3U, PW9135G6000-XL3UEU.
(7) Model list: PW9135G6000-EBM3U.

## 8.2 Glossary

| | |
|---|---|
| **Backup time** | Time that the connected equipments can operate on battery power. |
| **Bypass AC source** | Source supplying the bypass line. The equipments can be transferred to the bypass line if an overload occurs on the UPS output, for maintenance or in the event of a malfunction. |
| **ECO mode** | Operating mode by which the equipments are supplied directly by the AC source if it is within the tolerances defined by the user. This mode reduces the consumption of electrical power. |
| **Equipments** | Devices or systems connected to the UPS output. |
| **Frequency converter** | Operating mode used to convert the AC-power frequency between the UPS input and output (50 Hz -> 60 Hz or 60 Hz -> 50 Hz). |
| **Low-battery warning** | This is a battery-voltage level indicating that battery power is low and that the user must take action in light of the imminent break in the supply of power to the load. |
| **Manual bypass** | Rotary switch controlled by the user, used to connect the equipments directly to the AC source. Transfer of the equipments to the manual bypass enables UPS maintenance without interrupting the supply of power to the connected equipments. |
| **Normal AC source** | Normal source of power for the UPS. |
| **Normal (double conversion) mode** | The normal UPS operating mode in which the AC source supplies the UPS which in turn supplies the connected equipments (after electronic double conversion). |
| **Personalisation** | It is possible to modify certain UPS parameters set in the factory. Certain UPS functions can also be modified by the **EATON** powerware® power management products to better suit user needs. |
| **Programmable outlets** | These outlets can be automatically shut down during operation on battery power (shutdown time delays can be programmed with the **EATON** powerware® power management products). The UPS has two sets of two programmable outlets. |
| **Relay contacts** | Contacts supplying information to the user in forme of signals. |
| **UPS** | Uninterruptible Power System. |

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